REMARKS

Claims 1-43 and 58-71 were pending. Claims 58 and 71 have been amended. Accordingly, claims 1-43 and 58-71 remain pending subsequent entry of the present amendment.

35 U.S.C. § 101 Rejections

In the present Office Action, claims 58-67, 69 and 71 stand rejected under 35 U.S.C. § 101 as being directed to non-statutory subject matter. While the Applicant does not agree with the U.S. PTO's current position regarding the patentability of signal media, Applicant has amended the claims to facilitate a more speedy allowance.

35 U.S.C. § 112 Rejections

Claims 1-43, 68 and 70 stands rejected under 35 U.S.C. § 112, second paragraph, as being indefinite. In particular it is suggested that while the preambles of claims 1 and 70 are directed to apparatus, the claim limitations are method steps. However, Applicant disagrees. It is first noted that none of the limitations include gerunds as would typically be expected with method claim steps. Additionally, the claims preambles recite that the apparatus is operable to (e.g.) receive, produce, etc. Such a formulation is common (similar to the "configured to" language of apparatus claims) and is believed proper.

35 U.S.C. § 102 Rejections

In the present Office Action claims 1-4, 7, 42, 43, 58, 59 and 67 stand rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,337,715 (hereinafter

"Inagaki"). However, Applicant submits each of the pending claims recite features neither disclosed nor suggested by the cited art. Accordingly, Applicant traverses the above rejections and requests reconsideration.

For example, claim 1 recites:

> "A receiver for processing data, said receiver comprising a generic data processing engine operable to:
> receive a format definition, wherein said format definition is indicative of a format of additionally received data;
> configure said engine responsive to receiving the format definition; and
> process the additionally received data in accordance with the format definition." (emphasis added)

In the present Office Action, it is suggested that Inagaki discloses these features of claim 1 in Figure 7, Figure 8, and in the following description:

> "FIG. 7 is a diagram showing a structure of a broadcasting reception apparatus in accordance with a second embodiment of this invention. In the figure, reference numeral 21 designates a library EPG receiver receiving a library EPG provided by a broadcaster; 22, a library EPG analyzer analyzing the library EPG received by the library EPG receiver 21, and controlling a library receiver described below, based on a result of the analysis; 23, a library receiver receiving libraries provided by the broadcaster; 24, a library buffer holding the libraries received by the library receiver 23; 25, a data receiver receiving broadcast signals of a program; and 26, a processing unit decoding the program signals received by the data receiver 25, using the library held by the library buffer 24.
>
> FIG. 8 is a diagram showing an example of a structure of a broadcast signal of a program provided by a broadcaster. As shown in FIG. 8, the broadcast signal comprises a data part 31 and a header part 32. In the header part 32, the name of a decoding software program (library) for decoding data in the data part 31, and attribute data, such as the display position and display size of the data, are described. That is, data A is decoded using a library A, and displayed at a position (Xl, Yl) on a screen, in a size (W1, Hl)."

However, as can be seen, a new paradigm is disclosed wherein claim 1 recites in which a generic data processing engine operable to "configure said engine responsive to receiving the format definition". Inagaki does not disclose a generic processing engine as recited. Rather, Inagaki adheres to a prior art approach wherein software is downloaded for use in decoding signals. In Inagaki, a processing unit decodes received program signals "using the library held by the library buffer 24". In Inagaki, the processing unit does not configure itself in response to receiving a format definition. Rather, the processing unit executes "a decoding software program (library) for decoding data". The library may change, and thus, the software program may change, but the processing unit itself does not change. The processing unit executes a second software program as it executed a first software program. The decoding operation changes due to different instructions between the first and the second software programs, but the execution of the programs did not change due to a reconfiguration of the processing unit.

Generally speaking, Inagaki discloses prior art methods similar to those described by Applicant's present application. For example, in discussing figures 1 and 2, Applicant notes:

> "FIG. 1 illustrates a situation that does not use the generic SI engine for a vertical market (a market in which the IRD is furnished by the system operator or broadcaster). Here at least the software for the SI engine must be reinstalled. The difficulty of upgrading the software in a broadcast environment is compounded by the nature of the system. The software to be reinstalled must be continually broadcast if there is no mechanism available to allow downloading via a return channel. Even if there is a return channel, a signal to indicate availability of the new version must be broadcast repeatedly because not all IRDs will necessarily be turned on at the same time. In addition, use of the new format would likely be delayed until a substantial percentage of the IRDs had been upgraded.
>
> In an approach known as the "horizontal market," integrated receiver decoder manufacturers will manufacture and sell operator-independent decoders. These decoders will be useful to any consumer, regardless of the operator being used by the consumer. However, this approach is complicated by the broadcasters' desire to broadcast their own signaling that may not be completely standard, and thus the manufacturer would have to produce a different SI engine for each SI

> specification with which it desires to be compatible. As illustrated in FIG. 2, when several different broadcasters have modified standards for their own systems, the SI engine must be able to accommodate multiple different SI formats simultaneously. Additionally, if a new SI specification is later introduced or an existing specification is updated, the decoder will not have an SI engine to process the new SI specification, and must be updated with new SI engine software in the manner illustrated by FIG. 1. In other words, this scenario would require all SI formats to be defined prior to construction of the SI engine, otherwise the SI engine would have to be updated, as described earlier." (Description, pages 15-16).

As seen from the above, prior art methods are discussed wherein software must be downloaded in order to decode received signals. Inagaki describes just such a technique. In Inagaki, software (libraries) are downloaded which are needed to decode broadcast signals. Inagaki does not change this paradigm. Rather, Inagaki merely describes ways to reduce or avoid the latencies associated with changing from a first channel to a second where decoding software is not currently available for the second. For example, Inagaki discloses an EPG which may indicate whether decoding software is currently available for a particular channel, and if not how much of a latency to expect. Inagaki also discloses decoding software may be downloaded in advance. However, in either case, it is necessary to download the software library to decode the signal.

Applicant has reviewed the remainder of the cited reference and submits Inagaki does not disclose a generic data processing engine operable to "configure said engine responsive to receiving the format definition". For at least these reasons, claim 1 is patently distinct from the cited art.

Claim 1 recites a generic data processing engine operable to "receive a format definition, wherein said format definition is indicative of a format of additionally received data". In Figure 7 of Inagaki, it is shown that a processing unit receives a library from a library buffer 24 and data from data receiver 25. The data has a header part and a data part as shown in Figure 8. In the present Office Action, it is not suggested whether the library or the header part corresponds to a format definition. The library

name in the header part and the corresponding library, or software program, do not specify a format definition, or the syntax and semantics of the data. The received library supplies the processing unit with a program to execute, but it does not specify a format definition "indicative of a format of additionally received data". If the next additionally received data would change format, nowhere in Inagaki is it taught that the library provides a format definition to the processing unit that is indicative of a changed format for the next additionally received data. Also, nowhere in Inagaki is it taught that the header part provides a format definition. Inagaki discloses "In the header part 32, the name of a decoding software program (library) for decoding data in the data part 31, and attribute data, such as the display position and display size of the data, are described. That is, data A is decoded using a library A, and displayed at a position (Xl, Yl) on a screen, in a size (W1, Hl)." Again, if the format of the data were to change, such as a new syntax and semantics, the header part would not convey this information to the processing unit.

Further, in Inagaki a processing unit only decodes "the program signals received by the data receiver 25, using the library held by the library buffer 24". The processing unit, prior to decoding the program signals, does not "receive a format definition". Applicant submits neither this portion, nor the remainder of the document, disclose or suggest a processing unit is operable to "receive a format definition". Figure 18 in Inagaki illustrates another embodiment of its invention. However, the only difference as compared to the above embodiment with respect to the processing unit is the data part and header part of received data are separated prior to the processing unit receiving program signals to decode. The library name used to decode the data part may change, but the format of the received data is the same. Therefore, there is no format definition for the processing unit to receive. Regarding Figure 18, its operation is disclosed in the following:

> "FIG. 18 is a diagram showing a structure of a broadcasting reception apparatus in accordance with a fourth embodiment of this invention. In the figure, reference numeral 41 denotes a data receiver receiving broadcast signals of programs (hereinafter referred to as program signals) provided by broadcasters. The program signal comprises a data part and a header part. In the header part, attribute data, such as the name of a decoding software program for decoding the

> data, is described. 42 it a header separator separating a program signal received in the data receiver 41 into the data part and the header part, outputting the header part to a library controller 44 described hereinafter, and outputting the data part to the data processor 43 described hereinafter. 46 is a library receiver receiving a decoding software program (library) for decoding a program signal, via broadcasting … The data processor 43 decodes the data output by the header separator 42 using the library hold in the library buffer 45." (Inagaki, col. 20, lines 26-47) (emphasis added)

Inagaki does not disclose a processing unit operable to "receive a format definition, wherein said format definition is indicative of a format of additionally received data". Accordingly, for all of the above reasons, claim 1 is patentably distinct from Inagaki.

Further, claim 1 recites a generic data processing engine operable to "process the additionally received data in accordance with the format definition". As discussed above, the processing unit in Inagaki does not receive a format definition. Additionally, the processing unit in Inagaki decodes "the program signals received by the data receiver 25, using the library held by the library buffer 24" where the library is a "software program (library) for decoding data". Applicant has reviewed the cited portion and the remainder of the cited reference and submits Inagaki does not teach the processing unit decodes the program signals "in accordance with the format definition". The processing unit will execute a software program (library) in a same manner for each program and not alter the program execution to be in accordance with a format definition. For at least these reasons, claim 1 is patently distinct from the cited art.

As independent claim 58 includes features similar to claim 1, claim 58 is patentably distinguished from the cited reference for similar reasons. As each of the dependent claims include the features of the independent claims on which they depend, each of the dependent claims are patentably distinct for at least the above reasons.

35 U.S.C. § 103 Rejections

In the present Office Action, claims 5-11, 26-27 and 59-61 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Inagaki in view of Program Guide for

Digital Television ATSC Standard (hereinafter "ATSC"). However, Applicant submits each of the pending claims recite features that are neither disclosed nor suggested in the combination of cited references. Accordingly, Applicant traverses the above rejections and requests reconsideration.

MPEP 2143.03 states that "To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art." According to the reasons stated above for traversing the 35 U.S.C. § 102 rejections, Inagaki does not teach the limitations of independent claims 1 and 58. Therefore, the dependent claims are not rendered unpatentable by Inagaki taken alone or in combination with ATSC. Therefore, these dependent claims are believed patentably distinct from the cited art.

CONCLUSION

Applicant submits the application is in condition for allowance, and an early notice to that effect is requested.

If any fees are due, the Commissioner is authorized to charge said fees to Meyertons, Hood, Kivlin, Kowert, & Goetzel, P.C. Deposit Account No. 501505/5266-09300/RDR.

Respectfully submitted,

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